SERVICE MANUAL

T6.120 / T6.140 / T6.150 / T6.155 / T6.160 / T6.165 / T6.175 / T6.140 AutoCommand / T6.150 AutoCommand / T6.160 AutoCommand Tier 4A

Tractor

Part number 47665870
English
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Wire harnesses - Electrical schematic sheet 53 CAN STRUCTURE (EHR CAN)

T6.120	NA 16x16 Transmission
T6.140 AutoCommand	NA
T6.140	NA 16x16 Transmission
T6.150 AutoCommand	NA
T6.150	NA 16x16 Transmission
T6.155	NA 16x16 Transmission
T6.160 AutoCommand	NA
T6.160	NA 16x16 Transmission
T6.165	NA 16x16 Transmission
T6.175	NA 16x16 Transmission

Component	Connector	Description
A-002	**X776**	Armrest control unit (ARU)
A-021	**X305**	Electro Hydraulic Rear Remote Valve 1
A-022	**X306**	Electro Hydraulic Rear Remote Valve 2
A-023	**X307**	Electro Hydraulic Rear Remote Valve 3
A-024	**X308**	Electro Hydraulic Rear Remote Valve 4
R-016	**X304**	CAN bus termination resistor
Additional Connectors: **X020**, **X080**, **X088**, **X304**		

Wire Color Codes			
BK Black	**GN** Green	**PK** Pink	**BL** Blue
TN Light Brown	**BR** Brown	**OR** Orange	**LG** Light Green
RD Red	**GY** Grey	**LB** Light Blue	
WH White	**YE** Yellow	**VT** Violet	

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Battery - General specification

Temperature	Efficiency of a Fully Charged Battery
25.0 °C (77.0 °F)	**100 %**
-4.5 °C (23.9 °F)	**82 %**
-24.0 °C (-11.2 °F)	**64 %**
-27.5 °C (-17.5 °F)	**58 %**
-31.0 °C (-23.8 °F)	**50 %**
-34.5 °C (-30.1 °F)	**40 %**
-37.5 °C (-35.5 °F)	**33 %**

	140 Ah (800 cca)	**176 Ah (1300 cca)**
Slow Charge Programs	32 hours at **5 A**	46 hours at **5 A**
	17 hours at **10 A**	23 hours at **10 A**
Fast charge Program (emergencies only)	9 hours at **18 A**	13 hours at **18 A**

Use the following table to determine the state of charge

State of Charge	Corrected Specific Gravity @ **15 °C (59.0 °F)**	Corrected Specific Gravity @ **25 °C (77.0 °F)**	Average Battery Voltage
100 %	1.295	1.287	**12.76 V**
75 %	1.253	1.246	**12.52 V**
50 %	1.217	1.210	**12.30 V**
25 %	1.177	1.170	**12.06 V**
Discharged	1.137	1.130	**11.84 V**

Specific Gravity	Fast charge up to :
1.150 SG or less	**60 minutes**
1.151 - 1.175 SG	**45 minutes**
1.176 - 1.200 SG	**30 minutes**
1.201 - 1.225 SG	**15 minutes** (Slow charge only)

Description	Battery Specification
Capacity (Ampere hour at 20 hour rate)	140 / 176
Cold Cranking Ampere Rating	800 / 1300
Voltage	12
Cells	6
Ground Terminal	Negative

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12013-Electrical Motor Short Circuit To Ground

T6.140 AutoCommand	NA
T6.150 AutoCommand	NA
T6.160 AutoCommand	NA

Control Module : EPL

NOTE: *When the cause of the error code has been rectified, clear the error code and test the system for normal operation.*

NOTE: *To electronically release and disable the Electronic Park Lock (EPL) when carrying out maintenance on the system, use the H1 calibrations menu in the XA module. Select* ***(SC)*** *and perform the accelerometer stroke calibration procedure but stop the process when* ***(M)*** *is displayed and turn the ignition key switch OFF. For further information, refer to* ***Electronic park lock actuator/controller - H1 - Calibration procedures (55.031)****.*

If electronic release is not possible, remove the EPL cover and use the special tool supplied in the cab to manually disengage the EPL.

NOTE: *When clearing the stored memory in H8 in the XA module or installing a new EPL, make sure the correct EPL orientation is selected in H3 in the XA module, channel 3. Refer to* ***Electronic park lock actuator/controller - H3 - Configurations and options (55.031)****.*

Cause:
The fault triggering condition is 'outside of actuation'.

Possible failure modes:

1. Faulty Electronic Park Lock (EPL) assembly

Solution:

1. Make sure the machine is parked on a level surface and chock the front wheels using suitable wheel stops.

   A. Continue to step **2**

2. Before proceeding clear the error code using either the on board HH menu or approved diagnostic equipment. Turn the ignition key switch OFF, wait for 5 seconds and then turn the ignition key switch ON. Operate the system and check for the error code.

   A. If the error code is not indicated, check that the system is operating correctly.

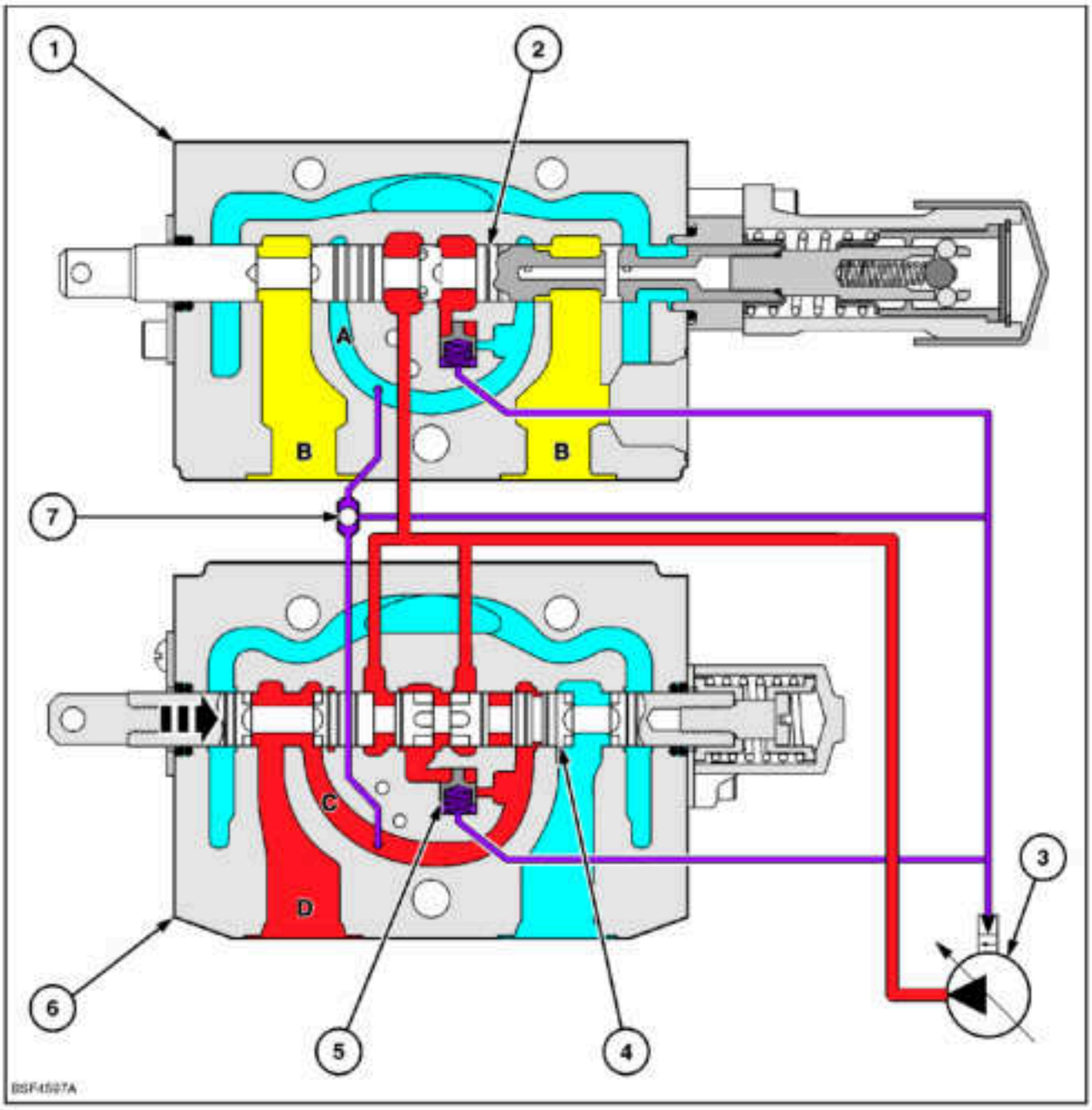
   B. If the error code is indicated, continue to step **3**

3. Using H8 in the XA module, clear the EPL memory, refer to **Electronic park lock actuator/controller - H8 - Clear stored calibration information (EEPROM) (55.031)**. Using H3 in the XA module, re-enable the EPL, refer to **Electronic park lock actuator/controller - H3 - Configurations and options (55.031)**. Re-calibrate the EPL, refer to **Electronic park lock actuator/controller - H1 - Calibration procedures (55.031)**. Operate the system and check for the error code.

   A. If the error code is not indicated, check that the system is operating correctly.

   B. If the error code is indicated or it was not possible to calibrate the EPL, remove and replace the EPL assembly. Refer to **Electronic park lock actuator/controller - Remove (55.031)** and **Electronic park lock actuator/controller - Install (55.031)**. Calibrate the EPL, refer to **Electronic park lock actuator/controller - H1 - Calibration procedures (55.031)**.

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BSF4597A 1

High Pressure Circuit Oil

Load Sensing Pressure Oil

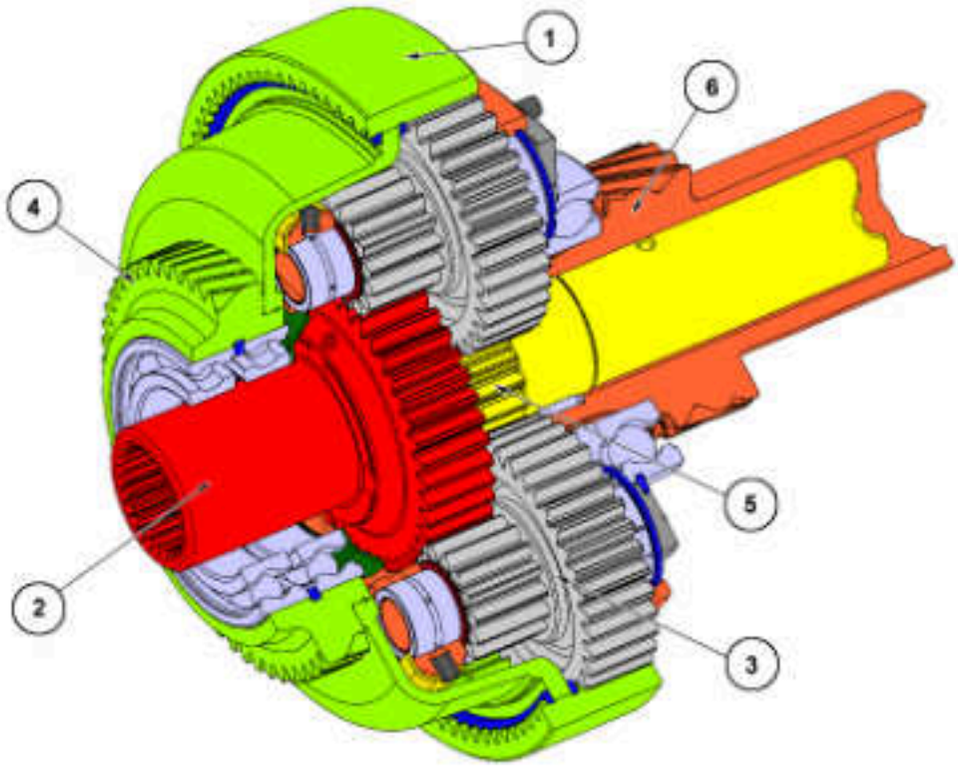
Return To Reservoir Oil

Trapped Oil

1 Control Valve with Detent (Boom)
2 Boom Spool
3 Pump
4 Bucket Spool
5 Compensator
6 Control Valve less detent (Bucket) Valve
7 Load Sense Shuttle Valve

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Summation planetary gears



68908021 B

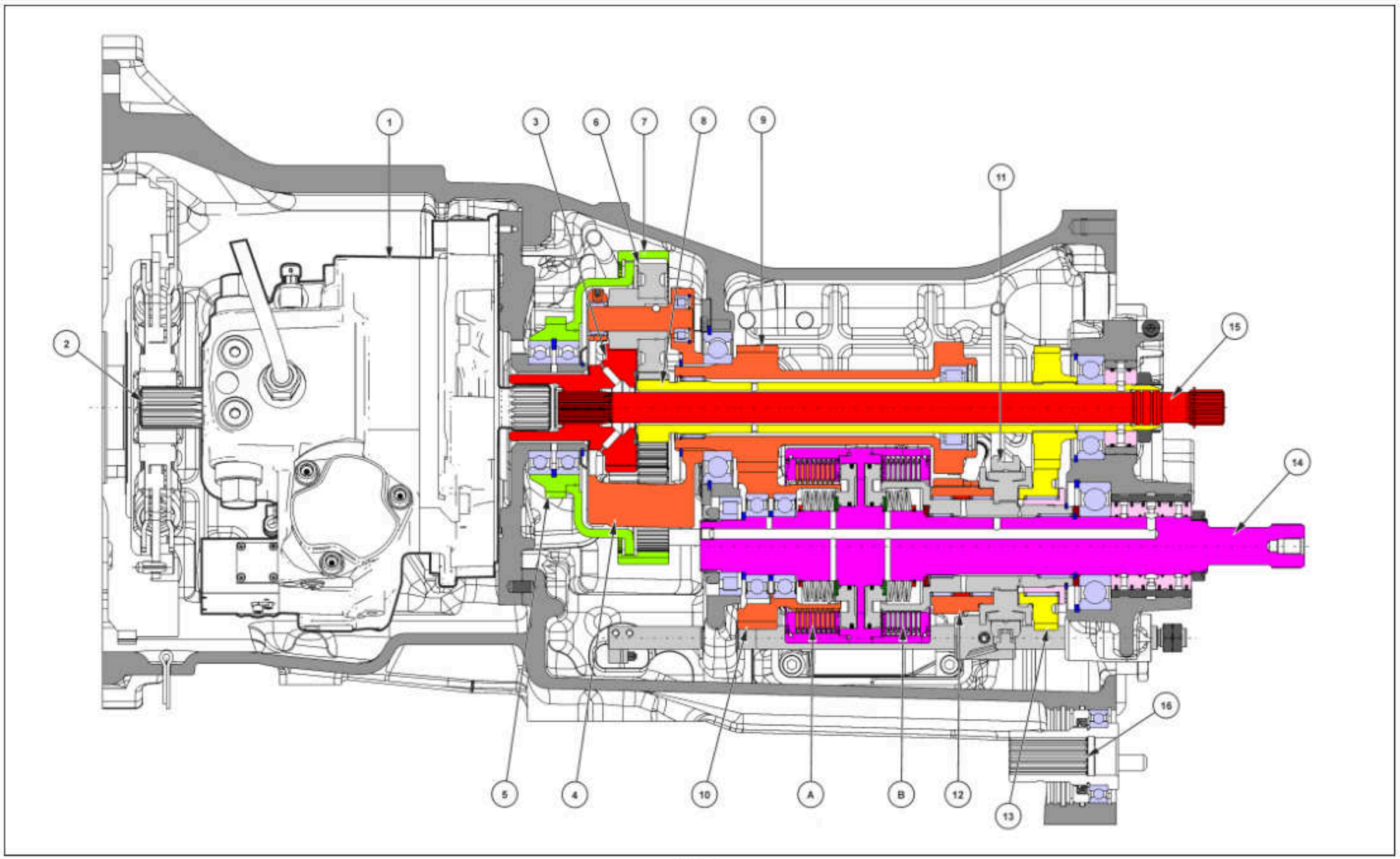
The summation planetary gears have two input shafts and two output shafts.

In a figurative sense, the sun gear **(2)** and the ring gear **(1)** are the two input shafts. The planetary gear carrier **(6)** and the sun gear **(5)** each have a secure connection to an output shaft.

The spur gear **(4)** drives the ring gear **(1)** directly from the hydro motor. The combustion engine drives the sun gear **(2)** directly. From the three double planetary gears **(3)**, the drive power transfers either via the planetary gear carrier **(6)** or via the sun gear **(5)** to the corresponding output shaft.

With the aid of the two output shafts, two continuously variable forward gears and one continuously variable reverse gear are possible in conjunction with the synchronizer and the clutches **(A)** and **(B)**. This enables the operator to implement all requirements (large tractive effort, high top speed, the necessary gear spread and excellent efficiency).

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